

## Mineral Industry Surveys

For information, contact:

John W. Blossom, Molybdenum Commodity Specialist

U.S. Geological Survey 989 National Center Reston, VA 20192

Telephone: (703) 648-4964, Fax: (703) 648-7757

E-mail: jblossom@usgs.gov

Barbara J. McNair (Data) Telephone: (703) 648-7952 Fax: (703) 648-7975

MINES FaxBack: (703) 648-4999

Internet: http://minerals.usgs.gov/minerals

## **MOLYBDENUM IN JUNE 1999**

Domestic production of molybdenum in concentrate in June 1999 was about 5% greater than that of the previous month and was 5% less than that of June 1998, according to the U.S. Geological Survey. Producer stocks of molybdenum in concentrate, oxide, and other product forms were 14,000 metric tons at the beginning of 1999 and 15,500 metric tons at the end of June 1999.

Included in this Mineral Industry Surveys are U.S. production, shipments, and stocks of molybdenum concentrates and materials, plus U.S. consumption, by end use, of molybdenum in the previous and current months; also included are trade data for the previous month. During the current month, Platt's Metals Week

U.S. monthly average price for molybdenum concentrate was \$3.748 per kilogram (\$1.700 per pound). The average price for dealer molybdenum oxide was \$6.054 per kilogram (\$2.746 per pound), and that for dealer ferromolybdenum was \$8.157 per kilogram (\$3.700 per pound).

For the week ending August 30, 1999, Metals Week U.S. average price for molybdenum concentrate was \$3.748 per kilogram (\$1.700 per pound). The average price for dealer molybdenum oxide was \$5.787 per kilogram (\$2.625 per pound), and that for ferromolybdenum was \$8.047 per kilogram (\$3.650 per pound).

TABLE 1
U.S. SALIENT MOLYBDENUM CONCENTRATE STATISTICS 1/

(Metric tons, contained molybdenum)

	1998 p/	1	999	
	January-			Year to
	December	May r/	June	date
Production	53,300	4,560	4,340	25,100
Shipments: 2/				
Domestic	34,300	3,620	3,240	19,300
Export	17,800	923	1,160	6,400

p/ Preliminary. r/ Revised.

 ${\bf TABLE~2} \\ {\bf U.S.~REPORTED~PRODUCTION~AND~SHIPMENTS~OF~MOLYBDENUM~PRODUCTS~~}1/$ 

(Metric tons, contained molybdenum)

	1998 p/	1		
	January-			Year to
	December	May	June	date
Gross production	57,200	3,030 r/	3,640	21,800
Internal consumption 2/	23,400	1,780 r/	1,750	10,500
Gross shipments	38,000	2,720	3,110	18,600

p/ Preliminary. r/ Revised.

 ${\it TABLE~3}$  U.S. REPORTED CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS 1/

(Kilograms, contained molybdenum)

	Molybdic	Ferro molyb-	Ammonium and sodium	Molyb- denum		
End use	oxides	denum 2/	molybdate	scrap	Other	Total
1999, May:				жение		
Steel:						
Carbon	17,800	W			3,190	21,000
High-strength low-alloy	W	8,430				8,430
Stainless and heat-resisting	215,000	39,800			4,760	259,000
Full alloy	144,000	135,000			2,330	281,000
Tool	W	7,590			1,450	9,040
Total	377,000	191,000			11,700	579,000
Cast irons (gray, malleable, and ductile iron)	W	37,500			763	38,300
Superalloys	W	W		(3/)	76,600	76,600
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	W	W			6	6
Other alloys	542	162			6,290	6,990
Mill products made from metal powder 4/					170,000	170,000
Cemented carbides and related products 5/					2	2
Chemical and ceramic uses:						
Pigments			1,320		W	1,320
Catalysts	77,300		W			77,300
Other	W				1,710	1,710
Miscellaneous and unspecified uses:						
Lubricants					10,300	10,300
Other	210,000	32,400	74,200		14,900	332,000
Grand total	665,000	261,000	75,500		292,000	1,290,000
Stocks, May 31, 1999	656,000	339,000	3,920	23,200	820,000	1,840,000

See footnotes at end of table.

<sup>1/</sup> Data are rounded to three significant digits.

<sup>2/</sup> Includes molybdic oxides, metal powder, ammonium molybdate, sodium molybdate, and other.

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<sup>2/</sup> Includes molybdic oxides, metal powder, ammonium molybdate, sodium molybdate, and other.

## TABLE 3--Continued U.S. REPORTED CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS 1/

(Kilograms, contained molybdenum)

	Molybdic	Ferro molyb-	Ammonium and sodium	Molyb- denum		
End use	oxides	denum 2/	molybdate	scrap	Other	Total
1999, June:			•	•		
Steel:						
Carbon	30,000	23,100			3,190	56,200
High-strength low-alloy	27,000	7,990				35,000
Stainless and heat-resisting	283,000	43,700			4,760	332,000
Full alloy	159,000	169,000			2,330	330,000
Tool	W	5,880			1,450	7,330
Total	499,000	250,000			11,700	760,000
Cast irons (gray, malleable, and ductile iron)	W	54,000			763	54,700
Superalloys	79,700	W		(3/)	100,000	180,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	W	W			6	6
Other alloys	171	136			6,290	6,600
Mill products made from metal powder 4/					155,000	155,000
Cemented carbides and related products 5/					2	2
Chemical and ceramic uses:						
Pigments					W	W
Catalysts	77,300		W		W	77,300
Other	W				4,060	4,060
Miscellaneous and unspecified uses:						
Lubricants					11,900	11,900
Other	75,000	8,040	74,200		14,900	172,000
Grand total	731,000	312,000	74,200		306,000	1,420,000
Stocks, June 30, 1999	586,000	349,000	3,480	14,800	822,000	1,780,000

W Withheld to avoid disclosing company proprietary data; included in "Other" of the "Miscellaneous and unspecified uses" category.

TABLE 4
U. S. EXPORTS OF MOLYBDENUM ORES AND CONCENTRATES (Including roasted concentrate), BY COUNTRY 1/

(Kilograms, contained molybdenum)

		1999			
Country	1998	April	May	Year to date	
Australia	81,700	9,510	1,770	23,300	
Belgium	4,470,000	483,000	337,000	2,690,000	
Brazil	59,400	295	3,220	5,250	
Canada	994,000	132,000	67,800	532,000	
Chile	6,840,000	316,000	306,000	1,450,000	
China	424,000				
Germany	460,000	11,800	11,700	46,700	
Italy	448,000	12,000	17,500	122,000	
Japan	4,410,000	130,000	189,000	1,050,000	
Korea, Republic of	8,660	30,200		33,800	
Mexico	4,220,000	10,900		125,000	
Netherlands	12,800,000	447,000	347,000	2,810,000	
Spain	119,000			1,130	
Sweden	894,000	35,300	35,400	292,000	
United Kingdom	5,480,000	282,000	343,000	1,980,000	
Other	247,000	590	44,700	67,700	
Total	42,000,000	1,900,000	1,700,000	11,200,000	

<sup>1/</sup> Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

<sup>1/</sup> Data are rounded to three significant digits; may not add to totals shown.

<sup>2/</sup> Includes calcium molybdate.

<sup>3/</sup> Included in "Other" of the "Superalloys" category.

<sup>4/</sup> Includes ingot, wire, rod, and sheet.

<sup>5/</sup> Includes construction, mining, oil and gas, metal working machinery.

 $\begin{tabular}{ll} TABLE 5 \\ U.\,S.\,EXPORTS\,OF\,FERROMOLYBDENUM,\,BY\,COUNTRY\,\,1/ \end{tabular}$ 

(Kilograms, contained molybdenum)

	1999						
Country	1998	April	May	Year to date			
Australia	1,800			382			
Canada	549,000	28,100	42,900	175,000			
China	133,000	39,100		114,000			
Japan	31,200	6,370	6,420	27,200			
Korea, Republic of	1,610			327			
Mexico	91,000	2,040	1,770	21,200			
Other	852		599	599			
Total	809,000	75,600	51,700	339,000			

<sup>1/</sup> Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

 ${\bf TABLE}~6$  U.S. IMPORTS FOR CONSUMPTION OF MOLYBDENUM PRODUCTS 1/

(Kilograms unless otherwise specified)

	1998  January-December			1999 May			
	Gross	Contained	Value (c.i.f.)	Gross	Contained	Value (c.i.f.)	
Material	weight	molybdenum	(thousands)	weight	molybdenum	(thousands)	
Ore and concentrates roasted	8,020,000	5,090,000	\$39,700	1,010,000	568,000	\$3,100	
Ore and concentrates other	2,710,000	1,480,000	7,810	17,000	8,840	34	
Molybdenum chemicals:							
Oxides and hydroxides	1,180,000	NA	9,610	95,500	NA	602	
Molybdates of ammonium	1,240,000	684,000	8,980	133,000	74,500	688	
Molybdates (all others)	192,000	113,000	982				
Molybdenum orange	2,050,000	NA	7,950	69,000	NA	361	
Mixtures of inorganic							
compounds							
Ferromolybdenum	7,690,000	4,830,000	44,000	824,000	512,000	3,820	
Molybdenum powders	110,000	103,000	3,210	14,000	12,900	393	
Molybdenum unwrought	145,000	137,000	2,110	5,680	5,680	204	
Molybdenum waste and scrap	296,000	292,000	4,080	41,500	520,000	526	
Molybdenum wire	5,530	NA	500	360	NA	32	
Molybdenum other	7,850	NA	1,650	550	NA	99	
Total	23,700,000	12,700,000	131,000	2,210,000	1,700,000	9,860	

NA Not available.

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.